

CLAIMS

1. A heat exchange type ventilator comprising:

an exhaust-air coupling section communicating with outdoors
5 via a duct for forming an exhaust-air channel and coupled to a lateral side of
the ventilator;

a supply-air coupling section communicating with outdoors via a
duct for forming a supply-air channel and coupled to a lateral side of the
ventilator; and

10 a ventilating unit shaping like a box and including an
exhaust-air outlet for sucking stale interior air through an opening disposed on
an underside of the ventilating unit and a supply-air inlet for drawing fresh
outside air into a room, the ventilating unit comprising:

a motor for driving an exhaust-air fan and a supply-air fan;
15 a heat exchanger for recovering exhausted heat between
the interior air sucked through the exhaust-air outlet and the fresh outdoor air
drawn in;

20 a cut-off damper for cutting off a flow of the supply-air in
the supply-air channel running from the supply-air coupling section to the
supply-air inlet; and

supply-air temperature sensing means for sensing a
temperature of the outside air drawn in,

25 wherein the cut-off damper cuts off the flow of the supply-air based
on a signal issued from the supply-air temperature sensing means, so that an
exhaust-air volume exhausted by the exhaust-air fan is reduced.

2. The heat exchange type ventilator of claim 1 further comprising

sensing-temperature setting means which can arbitrarily set or change a temperature to be sensed by the supply-air temperature sensing means.

3. The heat exchange type ventilator of claim 1 or claim 2 further
5 comprising a timer which can arbitrarily set a closing time of the cut-off
damper.

4. The heat exchange type ventilator of claim 1, 2 or 3, wherein the
ventilating unit further includes an on/off valve which allows a part of the
10 exhaust-air channel running from the exhaust-air coupling section to the
exhaust-air outlet to communicate with the supply-air channel in part.

5. The heat exchange type ventilator of any one of claim 1 through
claim 4 further comprising heating means for preheating the supply-air drawn
15 in through the supply-air coupling section just before the supply-air passes
through the heat exchanger.

6. The heat exchange type ventilator of any one of claim 1 through
claim 5, wherein the supply-air temperature sensing means is detachable, and
20 mountable anyplace in the supply-air channel.

7. The heat exchange type ventilator of any one of claim 1 through
claim 6, wherein the exhaust-air fan and the supply-air fan are driven by a DC
motor.

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8. The heat exchange type ventilator of any one of claim 1 through
claim 7 further comprising:

rpm sensing means for sensing an rpm of the exhaust-air fan; and
rpm control means for controlling an rpm of the exhaust-air fan
based on a signal issued from the rpm sensing means.

5 9. The heat exchange type ventilator of any one of claim 1 through
claim 7 further comprising:

static pressure sensing means for sensing a static pressure in the
exhaust-air channel; and

10 rpm control means for controlling an rpm of the exhaust-air fan
based on a signal issued from the static pressure sensing means.

10. The heat exchange type ventilator of any one of claim 1 through
claim 7 further comprising:

15 air volume sensing means for sensing a volume of the
exhaust-air; and

rpm control means for controlling an rpm of the exhaust-air fan
with a signal issued from the air volume sensing means.